

TITLE OF THE INVENTION

Polishing Pads Useful in Chemical Mechanical Polishing
of Substrates in the Presence of a Slurry
Containing Abrasive Particles

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CROSS REFERENCE TO RELATED APPLICATIONS

This application claims the benefit under 35 U.S.C. §
112(e) of U.S. Provisional Application No. 60/129,048,
filed April 13, 1999, the entire disclosure of which is
10 incorporated herein by reference.

PS 2/25/05 This application ~~claims the benefit under 35 U.S.C. §~~
~~112(e)~~ ^{is a con} of U.S. Patent Application No. 09/545,982, filed on
April 10, 2000, the entire disclosure of which is
incorporated herein by reference.

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STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR
DEVELOPMENT

- N/A -

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BACKGROUND OF THE INVENTION

Semiconductor devices are formed from a flat, thin
wafer of a semiconductor material, such as silicon. The
wafer must be polished to achieve a sufficiently flat
surface with no or minimal defects. A variety of chemical,
25 electrochemical, and chemical mechanical polishing
techniques are employed to polish the wafers.

In chemical mechanical polishing ("CMP"), a polishing
pad made of a urethane material is used in conjunction
with a slurry to polish the wafers. The slurry comprises
30 abrasive particles, such as aluminum oxide, cerium oxide,
or silica particles, dispersed in an aqueous medium. The
abrasive particles generally range in size from 100 to